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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,437	08/30/2006	Cedric Calvez	Q92127	6383

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EXAMINER	
KRUER, KEVIN R	

ART UNIT	PAPER NUMBER
1787	

NOTIFICATION DATE	DELIVERY MODE
06/30/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/561,437	CALVEZ ET AL.	
	Examiner	Art Unit	
	KEVIN R. KRUER	1787	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in 6/23/03 on the European Patent Office. It is noted, however, that applicant has not filed a certified copy of the EP application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 25-28, 30-32, and 40-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spears et al (US 6,455,148) in view of JP01108207 (herein referred to as Harada).

Spears teaches a laminate comprising a polyethylene core and 2 metallic skin layers adhered thereto (Figure 1 and col 3, lines 20+). The laminate is made by applying the adhesive to the metallic skin layers and then laminating the layers to the polyethylene core (col 5, lines 13+), heated and then pressed to make the laminate. The metal may comprise aluminum (col 5, line 22). The adhesive is extruded into a film and then laminated to the metal sheets (col 6, lines 42+). The laminate may further comprise a rigid foam polyethylene layer (col 3, lines 30+), herein understood to read on the additional layer of claim 44. Alternatively, it would have been obvious to directly

extrude the adhesive onto the metal sheet as such a method is commonly used in the art to apply adhesive compositions to metallic sheets.

Spears teaches the adhesive may comprise a graft modified polyethylene composition (col 6, lines 43+) but does not teach the claimed adhesive composition wherein the base polymer is simultaneously grafted with silane and carboxylic acid. However, Harada teaches the simultaneous grafting of silane and carboxylic acid onto a polyolefin composition improves the workability and impact resistance of the composition (abstract). The carboxylic acid graft may comprise maleic anhydride (abstract). According to an on-site translation, the unsaturated silane monomers may comprise the silanes of claim 40. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to simultaneously graft silane and carboxylic acid onto the polyolefin taught in Spears. The motivation for doing so would have been to improve the impact resistance and workability of the composition. Furthermore, it would have been obvious to the skilled artisan to optimize the amount of said grafts in order to obtain the desired degree of crosslinking, impact resistance, and workability.

After said simultaneous grafting, the polyolefin is understood to be crosslinked based upon applicant's disclosure on page 11 of the specification that the polyolefin is crosslinked by grafting said polymer with an organosilane compound.

With regards to claim 26, Spears teaches the laminate may be formed into a composite of various lengths, widths and shapes (col 5, lines 10+). Thus, it would have

been obvious to use metallic sheets of different sizes in order to obtain a laminate with the desired shape, length, or width.

With regard to claim 41, Spears dos not explicitly teach the use of flame retardants but teaches the adhesive may comprise stabilizing additives (0034). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add a flame retardant to the adhesive taught in Spears. The motivation for doing so would have been to improve the flame retardant properties of the composite laminate.

With regards to claims 42 and 43, the gel content is herein understood to be a latent property of the composition rendered obvious by Spears in view of Harada. Alternatively, it would have been obvious to the skilled artisan to optimize the crosslinking density of the composition rendered obvious by Spears in view of Harada to obtain a high gel content. The motivation for doing so would have been because Harada teaches the functional grafts increase the mechanical properties o the composition.

With regards to claim 48, the limitation “automotive body part” is herein understood to be a preamble limitation that does not provide additional structure to the claim and does not patentably distinguish the clamed invention from the laminate taught in Spears in that the laminate of Spears is capable of being used as an automobile panel.

4. Claims 29 and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spears et al (US 6,455,148) in view of JP01108207 (herein referred to as Harada), as applied to claims above, and further in view of Botros (US 2004/0116602).

Spears in view of Harada is relied upon as above but does not teach the polyethylene should be blended with an elastomer. However, Botros teaches an adhesive composition comprising 65-95.5wt% (0032) HDPE (0015) base resin and an elastomer in relative amount of 15: to 1:1 (0016). Said ratio is understood to be sufficient specific to read on the elastomer percentages of claims 33-36 and the polyethylene ranges of claims 28 and 29. Thus, it would have been obvious to one of ordinary skill in the art to utilize the blend taught in Botros in place of the olefin polymer taught in Spears because such blends are taught to be highly useful as base

With regards to claims 37 and 38, it would have been obvious to the skilled artisan to graft polymerize the entire composition taught in order to improve the adhesion to metallic substrates. Functionalizing the entire composition will result in functionalized styrene elastomers (0021), such as styrene maleic anhydride, claimed in claims 37 and 38.

5. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spears et al (US 6,455,148) in view of JP01108207 (herein referred to as Harada), as applied to claims above, and further in view of JP 56132709A (herein referred to as Showa).

Spears in view of Harada is relied upon as above but does not teach epoxy resin may be added to the composition. However, Showa teaches water treeing defects are minimized when crosslinked polyethylene is blended with 0.5-15wt% epoxy resin

(abstract). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add 0.5-15wt% epoxy to the crosslinked polyethylene taught by Spears in view of Harada in order to minimize water treeing.

Response to Arguments

Applicant's arguments filed April 8, 2011 have been fully considered, but are not persuasive.

With regard to Spears, applicant argues the reference is not analogous art because the panels are not suitable for exposure to temperatures of 160-220°C. Said argument is noted but is not persuasive because said argument is not commensurate in scope with the claimed invention. The claims do not require a laminate which can withstand such temperatures. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant further argues Speers is not reasonably pertinent to the problem being solved because it is not drawn to heat resistant laminates. Said argument is noted but not persuasive because the argument does not agree in scope with the pending claims; Applicant fails to point out which limitation restricts the claims to "heat resistant" laminates or makes the claimed invention non-analogous to Spears. Therefore, the examiner maintains the position for reasons of record.

Applicant further argues there would have been no motivation to modify Speers with Harada because there is no teaching in Spear that suggests crosslinking impact resistance, and workability should be modified. Said argument is noted but is not persuasive because the proper question is not what the primary reference suggests, but rather what is rendered obvious by the prior art as a whole. While the examiner notes Spear is silent with regards to any teaching suggesting the laminate exhibits inferior impact resistance, crosslinking or workability, the examiner maintains the position that the claimed invention is obvious in view of the teachings of Spear and Harada. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant further argues that even if the skilled artisan had made the modification, the proposed invention would not have been obvious because neither references teaches crosslinked polyethylene grafted simultaneously with silane and carboxylic acid. The examiner respectfully disagrees. Harada teaches simultaneous grafting of silane and carboxylic acid. As noted on page 11, said grafted polymers will inherently crosslink as a result of humidity in the air. Thus, while the references are silent to crosslinking, applicant admits that such grafted polymers will inherently crosslink when exposed the humidity in the atmosphere. While Harada is silent to such exposure and the grafting reaction is not carried out under conditions including water

exposure, the resulting product will inherently react with the moisture in the atmosphere- resulting in a crosslinked product.

Applicant further argues the plastic core layer of Speers should not be understood to read on the claimed additional layer, but does not provide an explanation of why the claimed "additional layer" would exclude the foam layer of Speers.

At applicant's request, a full translation of the Harada reference has been ordered. Said reference will be made of record as soon as it is made available to the examiner.

For the reasons noted above, the rejections are maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Kruer/
Primary Examiner, Art Unit 1787